

Amendment to the Drawings:

An annotated sheet of drawings including changes to FIG. 3 is attached. A replacement sheet incorporating the proposed changes is also attached.

The amendment is in response to the Examiner's objection in the Office Action regarding showing the first gap and second gap. As shown on the attached annotated and replacement sheets, the amendment to FIG. 3 adds reference characters and corresponding line segments to identify, respectively, the first gap 350 and second gap 355. Support for the amendment is found throughout the specification, as filed, e.g., page 4, lines 21-23.

No new matter has been added.

Attachment: Annotated Sheet Showing Changes.

Replacement Sheet Incorporating Proposed Changes.

REMARKS

The above Amendments and these Remarks are submitted under 35 U.S.C. § 132 and 37 C.F.R. § 1.111 in response to the Office Action mailed March 21, 2006.

Summary of the Examiner's Action and Applicant's Response

The Examiner has objected to the drawings and specification. Claims 2, 13, and 14 have been rejected under 35 U.S.C. § 112. The Examiner has further objected to Claims 1 and 11 because of informalities. The Examiner has rejected Claims 1-7 and 10-20 under 35 U.S.C. 103(a) as being obvious based on Stewart, et al., U. S. Patent No. 5,870,284, in view of Tate, U. S. Design Patent No. D279,283, also referred to herein as "Tate D279,283". Claims 8 and 9 have been rejected under 35 U.S.C. 103(a) as being obvious based on Stewart, et al. and Tate D279,283, as applied to Claim 1, and further in view of Muller, et al., U.S. Patent Application Publication No: 200510162832. Applicants respectfully traverse the rejections.

In this amendment, Applicants have amended Claims 1, 2, 11, 13, and 14. Figure 3 and the specification have also been amended. Claims 1-20 remain pending.

Response to the Objection to Claims 1 and 11

The Examiner has objected to Claims 1 and 11 because of informalities. In response, Applicants have amended Claims 1 and 11 as suggested by the Examiner. Applicants therefore respectfully request that the objection to Claim 1 and 11 be withdrawn.

Response to the Objection to the Drawings

The Examiner has objected to the drawings because the first gap, the second gap, and reference characters 350 and 355 in the specification are not shown. In response, Applicants have amended FIG. 3 to identify the first gap 350 and the second gap 355. An annotated sheet including changes to FIG. 3 and a replacement sheet incorporating the proposed changes are included in the Attachment at the end of this paper. Applicants therefore respectfully request that the objection to the drawings be withdrawn.

Response to the Rejection of Claims 2, 13, and 14 under 35 U.S.C. § 112

The Examiner has rejected Claims 2, 13, and 14 under 35 U.S.C. § 112, second paragraph.

In response, Applicants have amended Claims 2 and 14 to change the phrase “a vanes-shaped configuration with an opening” to “a vane with an opening”. In addition, Applicants have amended Claim 13 to change the term “build-in” to “integrated”. Applicants respectfully submit that the rejections to Claims 2, 13, and 14 under 35 U.S.C. § 112 have been overcome by these amendments.

Response to the Rejection of Claims 1-7 and 10-20 under 35 U.S.C. §103(a)

Regarding Claim 1, the Examiner stated that Stewart, et al. teaches an output cord (141), and a stand (115 and 125), coupled to the output cord (the output cord is coupled to the stand by the module 140), the stand having a base (125), the power module (14) plugging into the stand allowing vertical heat dissipation along vertical surfaces of said power module. (See Col. 22, lines 10-21). The Examiner acknowledged that Stewart, et al. lacks vertical members extending to corresponding fins extending away from the module in different directions and defining a gap. The Examiner stated that Tate D279,283 teaches a power module support (with labeled elements shown on FIGs. 1 and 4 in the Office Action) having a first vertical piece (1) extending from the base to a first fin (5) that extends out from the base away from the module (the module would be supported inside of the frame) in a first direction, and having a second vertical piece (3) extending from the base to a second fin (6) that extends out from the base away from the module in a second direction, the power module plugging into the stand defining a first gap (7) along an edge of the first fin that is adjacent to the first side of the power module and defining a second gap (8) along an edge of the second fin that is adjacent to the second side of the power module, allowing vertical heat dissipation generated by the power module with air flow vertically through the first and second gaps and along respective substantially vertical surfaces of said power module. The Examiner concluded that it would have been obvious to a person of ordinary skill in the electronic art to combine the power supply system of Stewart, et al. with the conventional power supply support of Tate D279,283 for the benefit of [providing] a lightweight support frame having large windows for cooling air. Applicants respectfully disagree.

Applicants have amended Claim 1 to further define the invention by adding the limitation that the edge of each fin extends substantially along the length of the stand. Claim 1 has also been amended to further define the invention by stating that the resulting gap defined by when the power module is plugged into the stand would also extend substantially along the length of the stand.

Applicants respectfully submit that Tate D279,283 does not teach or suggest an edge of the fins and a gap along the edge that extends along substantially the entire length of the stand into which the power module is plugged, as claimed in Claim 1. Applicants respectfully submit therefore that Claim 1 is non-obvious based on Stewart, et al. in view of Tate D279,283.

Regarding Tate Utility Patent No. 4,593,786

“Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.” M.P.E.P. 2143.01. “The test for an implicit showing is what the combined teachings; knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” M.P.E.P. 2143.01 citing *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). (Emphasis added).

Further, Applicants have uncovered a utility patent to Tate, U.S. Patent No. 4,593,786 (“Tate ‘786”) that includes a figure, i.e., FIG. 2, which shows a support that is essentially identical to the figures in Tate D279,283 that the Examiner referenced in his rejections of Claims 1-20. More specifically, Tate ‘786 discloses a support 20 shown in FIGs. 1 and 2 that is substantially identical to the support shown in FIGs. 1-4 in Tate D279,283. Tate ‘786 is directed to “[a] low profile support for releasably mounting a portable power supply on a vehicle chassis.” (Abstract). Applicants respectfully submit that Tate ‘786 makes it clear that the support 20 is designed “... to provide a power supply support which is of a durable construction and of a minimum profile.” (Col. 2, lines 1-3). Tate (‘786) also states that “[s]till... another object of the invention is to provide such a support which may be secured to a semitrailer chassis with little or no modification of the chassis.” (Col. 2, lines 9-11).

In contrast, the present invention is an air ventilation structure for a portable power device in a convection mode. A need addressed by the present invention is the need for an air ventilation cooling structure for a portable power device that produces a more efficient heat dissipation effect. (Paragraph [0004]). The present invention significantly improves the heat dissipation and power density of portable power devices. (Paragraph [0007]). The air ventilation structure of the present invention includes a first and second fin for increasing heat dissipation. (Page 4, lines 13-16, as

filed, in Paragraph [0017], as amended). The Examiner identified element 5 in FIG. 1 in Tate D279,283 as teaching a fin, as claimed in Claim 1. Applicants respectfully submit that Tate '786 identifies that element 5 as elements 28 and 32. (See FIGs. 1 and 2). Element 28 in Tate '786 is a clamp plate through which bolts are inserted for securing the support to the vehicle chassis. (Col. 3, lines 52-58). Element 32 in Tate '786 is a transverse positioning guide plate fixed to and extending upwardly from the clamp plates 28 at either end of the framework. (Col. 3, lines 42-47). Thus, Applicants respectfully submit that elements 28 and 32 in Tate 4,593,786 correspond to element 5 identified by the Examiner FIG. 1 in Tate D279,283 and are designed for structural support and for enabling the support to be mounted to a vehicle chassis. Thus, Applicants respectfully submit that the support and in particular, element 5, disclosed in Tate D279,283 is designed to solve a very different problem than is solved by the structure of the present invention. Applicants respectfully submit therefore, that the differences between the structure disclosed and the nature of the problem addressed in these two Tate patents, as compared to that solved by the present invention, show that there is no teaching or motivation, explicitly or implicitly, to combine Tate with the teachings in Stewart, et al.

“The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” M.P.E.P 2143.01 citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Further, Applicants respectfully submit that Tate '786 would make it clear to one of ordinary skill in the art that FIGs. 1-4 in Tate D279,283 are not directed to the air ventilation problem solved as a whole by the present invention. Applicants respectfully submit therefore, that Tate D279,283 would not provide, explicitly or implicitly, the required suggestion of the desirability of the combining Tate D279,283 with the teachings in Stewart, et al.

For all of the above reasons, Applicants respectfully submit that Claim 1 is non-obvious based on Stewart, et al. in view of Tate D279,283 (or Tate '786).

Claims 2-7 and 10-20

Claims 2-7, 10, and 20 depend from Claim 1, and thus are respectfully submitted as being non-obvious based on Stewart, et al. in view of Tate D279,283 for the same reasons given above for Claim 1.

Further regarding Claim 2, the Examiner stated that, as best as he understood the claim, Tate

teaches a stand comprising a third vertical piece (2) extending from the base to the first fin (5), a further vertical piece (4) extending from the base to the second fin (6), the first and third vertical pieces forming a first vanes-shaped configuration with an opening between the first and third vertical pieces, the second and fourth vertical pieces forming a second vanes-shaped configuration with an opening between the second and fourth vertical piece. Applicants respectfully disagree. Applicants respectfully submit that Tate does not teach a structure having four vertical pieces, as claimed in Claim 2. For this additional reason, Applicants respectfully submit that Claim 2 is non-obvious based on Stewart, et al. in view of Tate D279,283.

Claim 11 is similar to Claim 1, except for the addition of a fan. Applicants have amended Claim 11 as described above for Claim 1. Applicants therefore respectfully submit that Claim 11 is allowable on the same basis as Claim 1. Claims 12-19 depend from Claim 11, and thus are respectfully submitted as being non-obvious in view of Stewart, et al. and Tate for the same reasons as above for Claim 11. Further, Stewart, et al. teaches a fan only for blowing air on fins to facilitate heat dissipation by the fins. (See FIG. 47 and Col. 22, lines 8-20). Applicants respectfully submit therefore, that Stewart, et al. does not teach or suggest the air ventilation structure including a fan for generating air flow vertically through the first and second gaps for vertical heat dissipation, as claimed in Claim 11. Applicants respectfully submit therefore that Claims 11-19 are non-obvious in view of Stewart, et al. and Tate for this additional reason. Claim 14 includes four vertical pieces forming a vane, as included in Claim 2. Applicants respectfully submit therefore, that Claim 14 is also non-obvious in view of Stewart, et al. and Tate for the same reasons as given above for Claim 2.

Further regarding Claims 5 and 17, the Examiner stated that Stewart, et al. is silent regarding a reel section for winding an input power cord. The Examiner stated that it is old and well known to use a winding reel to store an electrical cord. The Examiner concluded that it would have been obvious to a person of ordinary skill in the art to combine a well known reel for winding the input cord for the benefit of storing the cord as part of the stand when it is not in use, making it easier to move, and for preventing the cable from knotting or becoming tangled. Applicants respectfully disagree. Applicants respectfully submit that the Examiner has impermissibly relied on the hindsight provided by the present invention in order to argue that Claims 5 and 17 are obvious. For this additional reason, Applicants respectfully submit that Claims 5 and 17 are non-obvious based on Stewart, et al. in view of Tate D279,283.

Response to the Rejection of Claims 8 and 9 under 35 U.S.C. §103(a)

Claims 8 and 9 have been rejected under 35 U.S.C. 103(a) as being obvious based on Stewart, et al. and Tate, as applied to Claim 1 above, and further in view of Muller, et al. The Examiner stated that Stewart, et al. and Tate lack any teaching of a power generator or fuel cell. The Examiner stated that Muller, et al. teaches using a fuel cell (10) to generate energy for a personal computer. See [0004]. The Examiner concluded that it would have been obvious to a person of ordinary skill in the computer art to replace the power converter of Stewart, et al. with a fuel cell as suggested by Muller, et al. for the benefit of a portable computer able to power itself without a connection to a power grid. Claims 8 and 9 depend from Claim 1 and thus Applicants respectfully submit that these claims are non-obvious based on Stewart, et al. in view of Tate and further in view of Muller, et al. for the same reasons given above for Claim 1.

For the above reasons, Applicants respectfully submit that all the pending claims, Claims 1-20, in the present application are allowable. Such allowance is respectfully solicited.

If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (415) 984-8200.

Respectfully submitted,

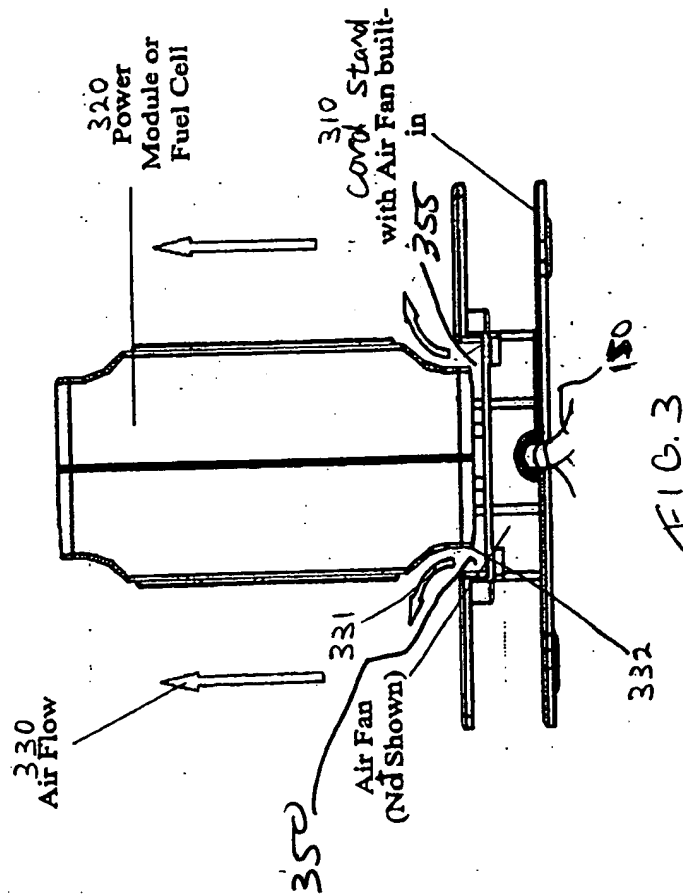


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ANNOTATED SHEET



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